

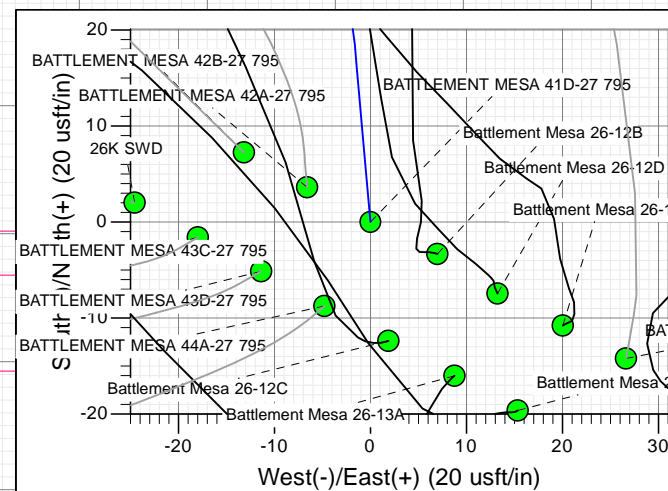
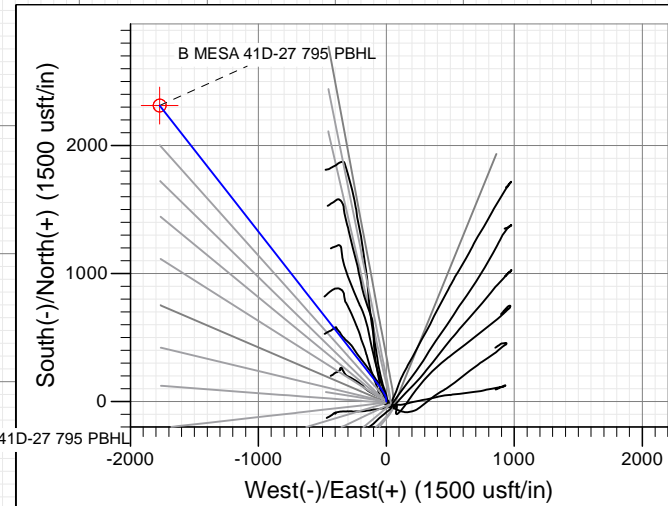
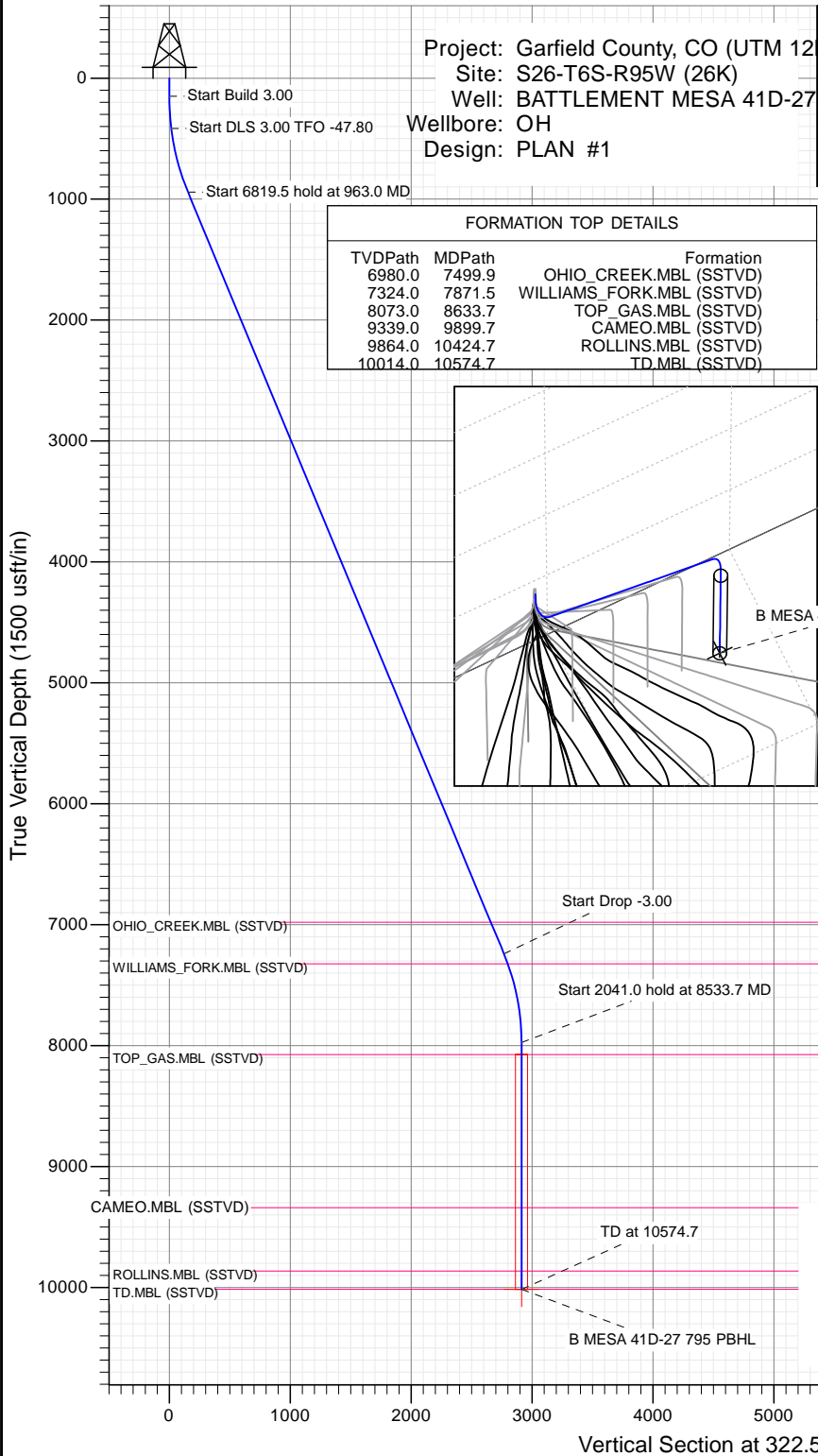


## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.0	
3	416.7	8.00	355.00	415.8	18.5	-1.6	3.00	355.00	15.7	
4	963.0	22.53	321.94	942.2	139.6	-69.9	3.00	-47.80	153.4	
5	7782.5	22.53	321.94	7241.1	2197.5	-1681.0	0.00	0.00	2766.7	
6	8533.7	0.00	0.00	7973.0	2312.3	-1770.9	3.00	180.00	2912.5	
7	10574.7	0.00	0.00	10014.0	2312.3	-1770.9	0.00	0.00	2912.5	B MESA 41D-27 795 PBHL

Project: Garfield County, CO (UTM 12  
Site: S26-T6S-R95W (26K)  
Well: BATTLEMENT MESA 41D-27  
Wellbore: OH  
Design: PLAN #1

PLAN #1 BATTLEMENT MESA 41D-27 795 15XXX; LR 30' KB @ 8994.0ust Ground Level @ 8964.0 NAD 1927 - Western US Well BATTLEMENT MESA 41D-27 795, True North										
Name	Type	Target	TD	No Target (Freehand)	Azimuth	Origin	Type	N/S	E/W	From TVD
					322.55			0.0	0.0	0.0
B MESA 41D-27 795 PBHL					10014.0	+N/-S	+E/-W		39.412209	Longitude
						2312.3	-1770.9			-107.975973



T M	
Azimuths to True North Magnetic North: 9.47°	
Magnetic Field Strength: 51904.6snT Dip Angle: 65.63° Date: 11/6/2015 Model: HDGM	
CASING DETAILS	
No casing data is available	

Vertical Section at 322.55° (1500 usft/in)

## WELL DETAILS: BATTLEMENT MESA 41D-27 795

+N/-S	+E/-W	Northing	Ground Level:	8964.0	Latitude	Longitude
0.0	0.0	14324088.50	Easting	2496462.30	39.405864	-107.969708

CATHEDRAL



## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BATTLEMENT MESA 41D-27 795
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8994.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8994.0usft
<b>Site:</b>	S26-T6S-R95W (26K)	<b>North Reference:</b>	True
<b>Well:</b>	BATTLEMENT MESA 41D-27 795	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

<b>Project</b>	Garfield County, CO (UTM 12N)		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

Site		S26-T6S-R95W (26K)			
Site Position:		Northing:	14,324,088.50 usft	Latitude:	39.405864
From:	Map	Easting:	2,496,462.30 usft	Longitude:	-107.969708
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.92 °

Well	BATTLEMENT MESA 41D-27 795					
Well Position	+N/-S	0.0 usft	Northing:	14,324,088.50 usft	Latitude:	39.405864
	+E/-W	0.0 usft	Easting:	2,496,462.30 usft	Longitude:	-107.969708
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,964.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	11/6/2015	9.47	65.63	51,905

<b>Design</b>	PLAN #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	322.55

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.00	0.00	
416.7	8.00	355.00	415.8	18.5	-1.6	3.00	3.00	0.00	355.00	
963.0	22.53	321.94	942.2	139.6	-69.9	3.00	2.66	-6.05	-47.80	
7,782.5	22.53	321.94	7,241.1	2,197.5	-1,681.0	0.00	0.00	0.00	0.00	
8,533.7	0.00	0.00	7,973.0	2,312.3	-1,770.9	3.00	-3.00	0.00	180.00	
10,574.7	0.00	0.00	10,014.0	2,312.3	-1,770.9	0.00	0.00	0.00	0.00	B MESA 41D-27 795

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BATTLEMENT MESA 41D-27 795
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8994.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8994.0usft
<b>Site:</b>	S26-T6S-R95W (26K)	<b>North Reference:</b>	True
<b>Well:</b>	BATTLEMENT MESA 41D-27 795	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
200.0	1.50	355.00	200.0	0.7	-0.1	0.6	3.00	3.00	
300.0	4.50	355.00	299.8	5.9	-0.5	5.0	3.00	3.00	
400.0	7.50	355.00	399.3	16.3	-1.4	13.8	3.00	3.00	
416.7	8.00	355.00	415.8	18.5	-1.6	15.7	3.00	3.00	Start DLS 3.00 TFO -47.80
500.0	9.85	344.12	498.1	31.2	-4.1	27.2	3.00	2.22	
600.0	12.38	335.66	596.2	49.2	-10.8	45.6	3.00	2.53	
700.0	15.08	330.10	693.4	70.2	-21.7	69.0	3.00	2.70	
800.0	17.87	326.23	789.3	94.2	-36.8	97.2	3.00	2.79	
900.0	20.72	323.38	883.7	121.2	-55.8	130.2	3.00	2.85	
963.0	22.53	321.94	942.2	139.6	-69.9	153.4	3.00	2.88	Start 6819.5 hold at 963.0 MD
1,000.0	22.53	321.94	976.4	150.8	-78.7	167.6	0.00	0.00	
1,100.0	22.53	321.94	1,068.8	181.0	-102.3	205.9	0.00	0.00	
1,200.0	22.53	321.94	1,161.1	211.2	-125.9	244.2	0.00	0.00	
1,300.0	22.53	321.94	1,253.5	241.3	-149.6	282.5	0.00	0.00	
1,400.0	22.53	321.94	1,345.8	271.5	-173.2	320.9	0.00	0.00	
1,500.0	22.53	321.94	1,438.2	301.7	-196.8	359.2	0.00	0.00	
1,600.0	22.53	321.94	1,530.6	331.9	-220.4	397.5	0.00	0.00	
1,700.0	22.53	321.94	1,622.9	362.0	-244.1	435.8	0.00	0.00	
1,800.0	22.53	321.94	1,715.3	392.2	-267.7	474.1	0.00	0.00	
1,900.0	22.53	321.94	1,807.7	422.4	-291.3	512.5	0.00	0.00	
2,000.0	22.53	321.94	1,900.0	452.6	-314.9	550.8	0.00	0.00	
2,100.0	22.53	321.94	1,992.4	482.7	-338.6	589.1	0.00	0.00	
2,200.0	22.53	321.94	2,084.8	512.9	-362.2	627.4	0.00	0.00	
2,300.0	22.53	321.94	2,177.1	543.1	-385.8	665.7	0.00	0.00	
2,400.0	22.53	321.94	2,269.5	573.3	-409.4	704.1	0.00	0.00	
2,500.0	22.53	321.94	2,361.9	603.4	-433.1	742.4	0.00	0.00	
2,600.0	22.53	321.94	2,454.2	633.6	-456.7	780.7	0.00	0.00	
2,700.0	22.53	321.94	2,546.6	663.8	-480.3	819.0	0.00	0.00	
2,800.0	22.53	321.94	2,639.0	694.0	-503.9	857.4	0.00	0.00	
2,900.0	22.53	321.94	2,731.3	724.1	-527.5	895.7	0.00	0.00	
3,000.0	22.53	321.94	2,823.7	754.3	-551.2	934.0	0.00	0.00	
3,100.0	22.53	321.94	2,916.1	784.5	-574.8	972.3	0.00	0.00	
3,200.0	22.53	321.94	3,008.4	814.7	-598.4	1,010.6	0.00	0.00	
3,300.0	22.53	321.94	3,100.8	844.8	-622.0	1,049.0	0.00	0.00	
3,400.0	22.53	321.94	3,193.2	875.0	-645.7	1,087.3	0.00	0.00	
3,500.0	22.53	321.94	3,285.5	905.2	-669.3	1,125.6	0.00	0.00	
3,600.0	22.53	321.94	3,377.9	935.4	-692.9	1,163.9	0.00	0.00	
3,700.0	22.53	321.94	3,470.2	965.5	-716.5	1,202.2	0.00	0.00	
3,800.0	22.53	321.94	3,562.6	995.7	-740.2	1,240.6	0.00	0.00	
3,900.0	22.53	321.94	3,655.0	1,025.9	-763.8	1,278.9	0.00	0.00	
4,000.0	22.53	321.94	3,747.3	1,056.1	-787.4	1,317.2	0.00	0.00	
4,100.0	22.53	321.94	3,839.7	1,086.3	-811.0	1,355.5	0.00	0.00	
4,200.0	22.53	321.94	3,932.1	1,116.4	-834.7	1,393.9	0.00	0.00	
4,300.0	22.53	321.94	4,024.4	1,146.6	-858.3	1,432.2	0.00	0.00	
4,400.0	22.53	321.94	4,116.8	1,176.8	-881.9	1,470.5	0.00	0.00	
4,500.0	22.53	321.94	4,209.2	1,207.0	-905.5	1,508.8	0.00	0.00	
4,600.0	22.53	321.94	4,301.5	1,237.1	-929.2	1,547.1	0.00	0.00	
4,700.0	22.53	321.94	4,393.9	1,267.3	-952.8	1,585.5	0.00	0.00	
4,800.0	22.53	321.94	4,486.3	1,297.5	-976.4	1,623.8	0.00	0.00	

# Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BATTLEMENT MESA 41D-27 795
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8994.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8994.0usft
<b>Site:</b>	S26-T6S-R95W (26K)	<b>North Reference:</b>	True
<b>Well:</b>	BATTLEMENT MESA 41D-27 795	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,900.0	22.53	321.94	4,578.6	1,327.7	-1,000.0	1,662.1	0.00	0.00	
5,000.0	22.53	321.94	4,671.0	1,357.8	-1,023.7	1,700.4	0.00	0.00	
5,100.0	22.53	321.94	4,763.4	1,388.0	-1,047.3	1,738.7	0.00	0.00	
5,200.0	22.53	321.94	4,855.7	1,418.2	-1,070.9	1,777.1	0.00	0.00	
5,300.0	22.53	321.94	4,948.1	1,448.4	-1,094.5	1,815.4	0.00	0.00	
5,400.0	22.53	321.94	5,040.5	1,478.5	-1,118.2	1,853.7	0.00	0.00	
5,500.0	22.53	321.94	5,132.8	1,508.7	-1,141.8	1,892.0	0.00	0.00	
5,600.0	22.53	321.94	5,225.2	1,538.9	-1,165.4	1,930.4	0.00	0.00	
5,700.0	22.53	321.94	5,317.5	1,569.1	-1,189.0	1,968.7	0.00	0.00	
5,800.0	22.53	321.94	5,409.9	1,599.2	-1,212.7	2,007.0	0.00	0.00	
5,900.0	22.53	321.94	5,502.3	1,629.4	-1,236.3	2,045.3	0.00	0.00	
6,000.0	22.53	321.94	5,594.6	1,659.6	-1,259.9	2,083.6	0.00	0.00	
6,100.0	22.53	321.94	5,687.0	1,689.8	-1,283.5	2,122.0	0.00	0.00	
6,200.0	22.53	321.94	5,779.4	1,719.9	-1,307.2	2,160.3	0.00	0.00	
6,300.0	22.53	321.94	5,871.7	1,750.1	-1,330.8	2,198.6	0.00	0.00	
6,400.0	22.53	321.94	5,964.1	1,780.3	-1,354.4	2,236.9	0.00	0.00	
6,500.0	22.53	321.94	6,056.5	1,810.5	-1,378.0	2,275.2	0.00	0.00	
6,600.0	22.53	321.94	6,148.8	1,840.6	-1,401.7	2,313.6	0.00	0.00	
6,700.0	22.53	321.94	6,241.2	1,870.8	-1,425.3	2,351.9	0.00	0.00	
6,800.0	22.53	321.94	6,333.6	1,901.0	-1,448.9	2,390.2	0.00	0.00	
6,900.0	22.53	321.94	6,425.9	1,931.2	-1,472.5	2,428.5	0.00	0.00	
7,000.0	22.53	321.94	6,518.3	1,961.3	-1,496.2	2,466.9	0.00	0.00	
7,100.0	22.53	321.94	6,610.7	1,991.5	-1,519.8	2,505.2	0.00	0.00	
7,200.0	22.53	321.94	6,703.0	2,021.7	-1,543.4	2,543.5	0.00	0.00	
7,300.0	22.53	321.94	6,795.4	2,051.9	-1,567.0	2,581.8	0.00	0.00	
7,400.0	22.53	321.94	6,887.8	2,082.0	-1,590.7	2,620.1	0.00	0.00	
7,499.9	22.53	321.94	6,980.0	2,112.2	-1,614.3	2,658.4	0.00	0.00	OHIO_CREEK.MBL (SSTVD)
7,500.0	22.53	321.94	6,980.1	2,112.2	-1,614.3	2,658.5	0.00	0.00	
7,600.0	22.53	321.94	7,072.5	2,142.4	-1,637.9	2,696.8	0.00	0.00	
7,700.0	22.53	321.94	7,164.8	2,172.6	-1,661.5	2,735.1	0.00	0.00	
7,782.5	22.53	321.94	7,241.1	2,197.5	-1,681.0	2,766.7	0.00	0.00	Start Drop -3.00
7,800.0	22.01	321.94	7,257.2	2,202.7	-1,685.1	2,773.4	3.00	-3.00	
7,871.5	19.87	321.94	7,324.0	2,222.8	-1,700.9	2,798.9	3.00	-3.00	WILLIAMS_FORK.MBL (SSTVD)
7,900.0	19.01	321.94	7,350.9	2,230.3	-1,706.7	2,808.4	3.00	-3.00	
8,000.0	16.01	321.94	7,446.2	2,254.0	-1,725.3	2,838.5	3.00	-3.00	
8,100.0	13.01	321.94	7,543.0	2,273.7	-1,740.7	2,863.5	3.00	-3.00	
8,200.0	10.01	321.94	7,641.0	2,289.4	-1,753.0	2,883.5	3.00	-3.00	
8,300.0	7.01	321.94	7,739.9	2,301.0	-1,762.1	2,898.3	3.00	-3.00	
8,400.0	4.01	321.94	7,839.4	2,308.6	-1,768.0	2,907.9	3.00	-3.00	
8,500.0	1.01	321.94	7,939.3	2,312.1	-1,770.7	2,912.2	3.00	-3.00	
8,533.7	0.00	0.00	7,973.0	2,312.3	-1,770.9	2,912.5	3.00	-3.00	Start 2041.0 hold at 8533.7 MD
8,600.0	0.00	0.00	8,039.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
8,633.7	0.00	0.00	8,073.0	2,312.3	-1,770.9	2,912.5	0.00	0.00	TOP_GAS.MBL (SSTVD)
8,700.0	0.00	0.00	8,139.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
8,800.0	0.00	0.00	8,239.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
8,900.0	0.00	0.00	8,339.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
9,000.0	0.00	0.00	8,439.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
9,100.0	0.00	0.00	8,539.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
9,200.0	0.00	0.00	8,639.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
9,300.0	0.00	0.00	8,739.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
9,400.0	0.00	0.00	8,839.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
9,500.0	0.00	0.00	8,939.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BATTLEMENT MESA 41D-27 795
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	30' KB @ 8994.0usft
<b>Project:</b>	Garfield County, CO (UTM 12N)	<b>MD Reference:</b>	30' KB @ 8994.0usft
<b>Site:</b>	S26-T6S-R95W (26K)	<b>North Reference:</b>	True
<b>Well:</b>	BATTLEMENT MESA 41D-27 795	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,600.0	0.00	0.00	9,039.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
9,700.0	0.00	0.00	9,139.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
9,800.0	0.00	0.00	9,239.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
9,899.7	0.00	0.00	9,339.0	2,312.3	-1,770.9	2,912.5	0.00	0.00	CAMEO.MBL (SSTVD)
9,900.0	0.00	0.00	9,339.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
10,000.0	0.00	0.00	9,439.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
10,100.0	0.00	0.00	9,539.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
10,200.0	0.00	0.00	9,639.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
10,300.0	0.00	0.00	9,739.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
10,400.0	0.00	0.00	9,839.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
10,424.7	0.00	0.00	9,864.0	2,312.3	-1,770.9	2,912.5	0.00	0.00	ROLLINS.MBL (SSTVD)
10,500.0	0.00	0.00	9,939.3	2,312.3	-1,770.9	2,912.5	0.00	0.00	
10,574.7	0.00	0.00	10,014.0	2,312.3	-1,770.9	2,912.5	0.00	0.00	TD at 10574.7 - TD.MBL (SSTVD)

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
B MESA 41D-27 795 PB	0.00	0.00	10,014.0	2,312.3	-1,770.9	14,326,340.00	2,494,614.70	39.412209	-107.975973
- plan hits target center									
- Circle (radius 50.0)									

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,499.9	6,980.0	OHIO_CREEK.MBL (SSTVD)		0.00	
7,871.5	7,324.0	WILLIAMS_FORK.MBL (SSTVD)		0.00	
8,633.7	8,073.0	TOP_GAS.MBL (SSTVD)		0.00	
9,899.7	9,339.0	CAMEO.MBL (SSTVD)		0.00	
10,424.7	9,864.0	ROLLINS.MBL (SSTVD)		0.00	
10,574.7	10,014.0	TD.MBL (SSTVD)		0.00	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
150.0	150.0	0.0	0.0	Start Build 3.00
416.7	415.8	18.5	-1.6	Start DLS 3.00 TFO -47.80
963.0	942.2	139.6	-69.9	Start 6819.5 hold at 963.0 MD
7,782.5	7,241.1	2,197.5	-1,681.0	Start Drop -3.00
8,533.7	7,973.0	2,312.3	-1,770.9	Start 2041.0 hold at 8533.7 MD
10,574.7	10,014.0	2,312.3	-1,770.9	TD at 10574.7